Krishi Seva

DBMS Project

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Introduction

With an increase in urbanization, it is the need of the hour to optimize the agricultural sector. With a full-scale implementation of the government schemes focused on doing the same, and increasing the organization around, it can be made possible, to fully maximise the efficiency of this sector.

Objective

Designing and implementing a farmer focused database that focuses on the work done in the primary sector, provides financial aid via bank loans and government schemes and giving emphasis on the new job opportunities created by doing the same. This would assist to increase the overall yield and efficiency of the agriculture sector, decrease unemployment as well as create a link between farmers and the government.

Let the website be called KrishiSeva.com

Aim

The main aim of this project would be to promote agriculture, and instead of rewarding the noble, it aims at providing help and assistance to all with the help of government schemes and giving priority with respect to their performances.

It would increase employment, making judicial use of the available man power the country has, providing farmers an excellent way to find labour.

Furthermore, it aims to concise the agriculture sector, so that it can be monitored closely and hence, be perfectly administered by the government.

Designed For

As can be perceived, the primary role in the portal would be of the *farmers*. Unskilled and agriculturally skilled *workers* can access the portal for job opportunities in various farms. The *government banks* take care of the loan process and the *traders* complete the overall payment transactions after buying the produce from the farmers. All of this process is supervised by the *government officials*.

Functional Requirement

Farmers

    a. Hire people, both skilled and unskilled, for assistance in the farms
    b. Avail government schemes

1

c. Apply for bank loans for financial aid

d. Link with traders to sell off the produce

Government Officials

a. Keep updates on the agricultural developments in a region

b. Overview the supply chain and the traders

c. Verifying the implementation and regulation of government schemes

Workers

a. *Skilled workers* such as consultants, agriculturally trained personnel, or even small-scale farmers that are looking for a job opportunity.

b. *Unskilled workers* as working labour in various farms as well as with traders

Government Banks

a. Opening and closing bank accounts of farmers

b. Granting loans and monitoring the investments

Traders

a. Contacting with farmers for their produce

b. Hiring workers for transportation

c. Managing crop requirements

Working of the Portal

The first process, would be the registration of the user. Once, the user is registered, they would be put in their respective category based on their occupation. Farmers, on being registered, would be given a credit score by the government banks, that would decide their maximum capability of taking a loan. The personal details shared by the farmer would also contribute in figuring out the government schemes he/she is eligible for.

Once the agricultural cycle begin, farmers could hire skilled and unskilled labour, which would also be available in the portal. The workers could also look for the jobs based on the occupation requirement of the farmers. Jobs that require special skills would be done by the respective individuals whereas others can act as employed labour.

As the harvesting season arrive, the traders would become active. They would reach out to farmers who harvested the crops they required, and a relationship would be established between the said trader and farmer, marking the end of the transactions from the point of view of the farmer.

After completion of a one transaction cycle, that is, after the produce is bought by the trader, the farmer can update the amount he made on his crops. The portal would then calculate his profit, taking into account the loans taken, the workers hired as well as the money the farmer spent from his/her own pocket.

This profit, or the turnaround would then be divided by the total land area that the farmer has, and then would be averaged per annum, so as to comparatively generate how much a farmer is earning per square foot of his land, in a year. This would be the performance of the farmer, and would be the main criteria for judging the most efficient farmers to the least.

The only thing left would be to judge the use of government aids the farmers were provided. This simply would be the ratio of the performance and the monetary aid provided by the government under a particular scheme per square foot of land. This would also mark an important criterion, when calculating the projected loans and the new credit scores for farmers.

With every detail calculated, the farmers would then be provided with their turnaround, their performance, their new credit score and their projected loan amount for the next agricultural cycle. The farmers would then be ranked according to their performance and new credit scores into three categories:

Diamond
Top 10% of the farmers would be placed in this category. They would be given lower interest rates on loans, free yearly field tests and would be prioritized for hiring labour.

Gold
The next 10% of the farmers would be placed in this category. They would be given free consultancy, free yearly field tests and would be given priority for hiring labour.

Silver
The next 20% of the farmers would be placed in this category. They would be given free quarterly field tests and free consultancy.

*NOTE – It would be mandatory for a farmer to have a bank account in order to be a part of these categories. If not, they would not be assigned a category.

These categories would be updated after every agricultural cycle, and since it is based on performance, it would be fair for even the small-scale farmers who are performing well. After this, the whole process would be repeated for every cycle.

Registration

Since this portal has a more professional implementation, it is mandatory for the user to be registered in order to access it. Registration is based on the occupation of an individual, whether he/she is a farmer, a government official, banker, trader or worker.

Based on registration, different access of portal would be provided, that is to say, based on your occupation, you would be provided information for your assistance.

Portal Access and Queries

Farmers
They are the primary users of this portal. The different information for their use might be:

1) Eligibility for government schemes
2) Credit Score for Bank Loans (Given by banks upon registering)
3) Yearly performance and overall efficiency
4) Requirement for manpower
5) Contacting with traders for supply distribution

Queries
1) Government schemes available for me

2) Overall turnaround for an agricultural cycle
3) Projected loans for the next agricultural cycle
4) Search for available manpower
5) Traders available for the particular crop and region of transport

Government Officials

They are the supervisors of the portal. Their purpose is to promote the farmers, as well as overlook all the activities in the sector. The different information for their use might be:

1) Access the overall performance and the investments made by farmers
2) Supervise the supply chain between the farmers and the traders
3) Providing access of government schemes to the eligible candidates.

*NOTE – We are assuming the perks would be provided by the government, here we only check the validation of the criteria.

Queries

1) Farmers with the best overall performance per annum.
2) Most active traders in a region.
3) Farmers eligible for a particular government scheme.
4) Monitor the judicial use of government subsidiaries.

Workers

They are the working class of the portal. Their purpose is to look for job opportunities, based on their skill set. The different information for their use might be:

1) Access job opportunities through the portal in various farms.

*NOTE - The skill requirement in assumed to be verified between the farmer and the worker prior.

Queries

1) Job opportunity available per my skill in the agriculture sector.

Government Banks

They manage the financial sector of the portal. Their role is to provide monetary assistance to the farmers via loans. The different information for their use might be:

1) Credit score of the farmers
2) Provide loans to the farmers according to their credit scores
3) Update the credit scores and projected loans on a half yearly basis.

Queries

1) Personal information of farmers, to calculate their credit score.
2) Overall performance, investments and profits of the farmer, to calculate the projected loans and new credit scores.
3) Keep a tab on judicial use of government schemes by the farmer, to finalize the credit scores.

Traders

They are the link between the farmers and the market. They buy the product of the farmers, thus marking the end of the payment transactions concerning the farmers. The different information for their use might be:

1) Farmers with crops having upcoming harvesting season
2) Requirement of crops less in current stock

Queries

1) Farmers in my region having crops that have upcoming harvesting season
2) Farmers in my region with crops less in stock than the minimum amount required

About Us

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